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EXAMINER

VU, MICHAEL T

ART UNIT PAPER NUMBER

2617

DATE MAILED: 09/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/802,391	HWANG ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Michael Vu	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-49 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/29/2006</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1, 9, 10, 11, and 48 objected to because of the following informalities:  
For example: should be "A method", "A Radio Network Controller", "A Network Element", "A User Equipment", and "A Network Element". Appropriate correction is required.

Furthermore, **Claim 1** is objected to because of the following informalities: a preamble for distinctly pointing out the subject matter should be included on the claim. Appropriate correction is required.

For Example, "A method of a network element comprising":

Thereafter, claimed limitations.

**Claim 24**, misspelling "chaired channel". An Examiner assumed "Shared Channel". ". Appropriate correction is required.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 06/09/2006 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-49 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US 2002/0061764).

Regarding **claims 1, 7, and 12**, Kim teaches a method comprising: sending information having a cell specific parameter (Fig. 1, SRNC #106, Base Station or Node B #108, User Equipment #110), a radio link specific parameter (Fig. 2, [0006-0009]), or both in **one or more** messages on an interface between a network element and a radio network controller for configuring a radio uplink (Figs. 1-2, [0002-0009]), configuring the radio uplink at the network element [0002-0009], and sending a payload packet from the user equipment to the network element over the radio uplink after the uplink is configured at the network element for sending the payload packet to the radio network controller (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

Regarding **claims 2, 13**, Kim teaches the method of claim 1, further comprising: acknowledging correct reception of the payload packet at the network element on a radio downlink from the network element to the user equipment, and sending the payload packet from the network element to the radio network controller following said correct reception from the user equipment (Figs. 12-14D, [0125-0131]).

Regarding **claims 3**, Kim teaches the method of claim 1, further comprising sending the information on an interface between the radio network controller and another radio network controller for relay to another network element for configuring an uplink between the other network element and the user equipment (Figs. 12-14D, [0125-0131]).

Regarding **claim 4**, Kim teaches the A mobile telecommunications system (Figs. 1-2), comprising: a network element and a radio network controller connected by a signaling interface arrange to configure a radio uplink from a user equipment to the network element (Fig. 1, Network Element #101/#102 to RNC #104), the interface being configured to convey messages having information elements containing parameters wherein information having a cell specific parameter (Figs. 1-2, [0002-0009]), a radio link specific parameter [0002-0009], or both is conveyable in one or more messages on the interface between the network element and the radio network controller for said configuring the radio uplink at the network element (Figs. 1-2, [0002-0009]), and wherein a payload packet is sent from the user equipment to the network element over the radio uplink after the uplink is configured at the user equipment for sending the payload packet to the radio network controller (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

Regarding **claim 5**, Kim teaches the system of claim 4, further characterized in that reception of the payload packet is acknowledged by the network element on a radio downlink from the network element to the user equipment, and that the payload packet

is sent from the network element to the radio network controller following reception from the user equipment (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

Regarding **claim 6**, Kim teaches the system of claim 5, further characterized in that the information element is sent on an interface between the radio network controller and another radio network controller for relay to another network element (Figs. 1-2, [0002-0009]).

Regarding **claim 8**, Kim teaches the data structure of claim 7, characterized in that transmission of the payload packet from the user equipment to the network element is followed by acknowledgement of correct reception of the payload packet by the network element on a radio downlink from the network element to the user equipment and transmission of the payload packet from the network element to the radio network controller (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

Regarding **claims 9, 10, and 48**, Kim teaches a Radio network controller (Fig. 1, #106) comprising: a first interface arranged to communicate information having a cell specific parameter (Fig. 1, #108 Node B included Cell), a radio link specific parameter (Fig. 1), or both in **one or more** messages on the first interface between a network element and the radio network controller so as to configure a radio uplink (Fig. 1, Network #101 interfaced RNC #106); and a second interface arranged to communicate the information on the second interface between the radio network controller and a second radio network controller connected to a second network element (Fig. 2, RNC #106, #114, interfaced Node B #108-109, #116-118), wherein the information is usable to configure a second radio uplink between the second network element and user

equipment [0004-0009], the first radio network controller being configured to receive a payload packet from the network element over the first interface [0004-0009], the second radio network controller being configured to receive the payload packet from the second network element after receipt by the second network element from the user equipment over the second radio uplink [0004-0009, and the second network element being configured to send the payload packet received from the second network element to the radio network controller following the reception by the second network element from the user equipment so as to transfer from the second network controller to the first network controller (Figs. 1-2, Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143])).

Regarding **claim 11**, Kim teaches an User equipment (Fig. 2, User Equipment #110) comprising: a transmitter and a receiver wherein the transmitter and the receiver together connected to an antenna that is arranged to transmit and receive signals over a radio interface between the user equipment and a network element wherein the user equipment also comprises (Fig. 2, 0004-0009): a control arranged to process signaling between the network element and the user equipment so as to configure a radio uplink from user equipment to the network element (Fig. 2, [0004-0009]), wherein sent information has a cell specific parameter (Fig. 2, Node B #109, #116), a radio link specific parameter (Fig. 2), or both in **one or more** messages on an interface between the network element and a radio network controller for said configuring the radio uplink (Fig. 2, [0004-0009], wherein the radio uplink is configured at the network element, and wherein a payload packet is send-able from the user equipment to the network element

over the radio uplink after the uplink is configured and then from the network element to the radio network controller (Fig. 1, [0002-0009], Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

Regarding **claim 14**, Kim teaches the method of claim 3, wherein said configuring the uplink between the other network element and the user equipment comprises the steps of configuring the uplink between the other network element and the user equipment followed by sending the payload packet from the user equipment to the other network element over the radio uplink between the user equipment and the other network element for sending the payload packet to the radio network controller. (Figs. 1-2, Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

Regarding **claim 15**, Kim teaches the method of claim 14, further comprising the steps of acknowledging correct reception of the payload packet at the network element on a radio downlink from the network element to the user equipment, and acknowledging correct reception of the payload packet at the other network element on a radio downlink from the other network element to the user equipment (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039]).

Regarding **claim 16**, Kim teaches the method of claim 1 wherein prior to said step of sending said information element on said interface between said network element and said radio network controller, said radio network controller decides a value for said cell specific parameter or said radio link specific parameter, or both, for said sending said information element with said cell specific parameter and said radio link



specific parameter in said one or more messages on said interface from said radio network controller to said network element (Figs.1-2 [0002-0020, 0030-0039]).

Regarding **claim 17**, Kim teaches the method of claim 1, wherein said step of sending by said radio network controller includes sending at least one parameter to said network element indicative of boundaries within which choices may be made by said network element (Figs.1-2 [0002-0020, 0030-0039]).

Regarding **claim 18**, Kim teaches the method of claim 1, wherein said radio network controller is responsive to signaling from said network element with a proposed value or values for said cell specific parameter, said radio link specific parameter, or both, and said radio network controller carries out said step of sending said information element either confirming or changing said proposed value or values (Figs.1-2 [0002-0020, 0030-0039]).

Regarding **claim 19**, Kim teaches the mobile telecommunications system of claim 4, wherein said configuring the uplink between the other network element and the user equipment comprises configuring the uplink between the other network element and the user equipment followed by sending the payload packet from the user equipment to the other network element over the radio uplink between the user equipment and the other network element for sending the payload packet to the radio network controller (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039]).

Regarding **claim 20**, Kim teaches the mobile telecommunications system of claim 19, further characterized in that correct reception of the payload packet at the network element is acknowledged on a radio downlink from the network element to the

user equipment, and correct reception of the payload packet at the other network element is acknowledged on a radio downlink from the other network element to the user equipment (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039]).

Regarding **claim 21**, Kim teaches the mobile telecommunications system of claim 4, wherein the radio network controller decides a value for said cell specific parameter or said radio link specific parameter, or both, prior to said information element being conveyed on said interface between the network element and the radio network controller (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039]).

Regarding **claim 22**, Kim teaches the mobile telecommunications system of claim 4, characterized in that said radio network controller is arranged to send at least one parameter to the network element indicative of boundaries within which choices may be made by said network element for said configuring said radio uplink (Figs. 1-2, [0002-0009]).

Regarding **claim 23**, Kim teaches the mobile telecommunications system of claim 4, characterized in that said radio network controller is responsive to signaling from said network element within proposed value or values for said cell specific parameter, said radio link parameter, or both, and said radio network controller conveys said one or more messages either confirming or changing said proposed value or values (Figs. 1-2 [0002-0020, 0030-0039]).

Regarding **claim 24**, Kim teaches the data structure of claim 7, characterized in that said cell specific parameter of said information element is included in a cell setup request message, a cell reconfiguration request message, a common transport channel

setup message, a common transport channel reconfiguration request message, a physical shared (shared) channel reconfiguration request message or a new message defined from the radio network controller to the network element (Figs. 1-2 [0002-0020, 0030-0039]).

Regarding **claim 25**, Kim teaches the data structure of claim 24, wherein said information element comprises a parameter defining total allowable interference due to radio uplink users wherein a scheduler of said network element is not allowed to allow a sum of uplink user noise rise to exceed said parameter (Figs. 1-2 [0002-0020, 0030-0039]).

Regarding **claim 26**, Kim teaches the data structure of claim 7, wherein said information defines a target of a total uplink load of a cell for use by said network element in scheduling so as to optimize capacity in a cell (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039]).

Regarding **claim 27**, Kim teaches the data structure of claim 7, wherein said information is included in a radio link setup request message, a radio link reconfiguration prepare message, a radio link reconfiguration request message, or a new message defined for uplink parameter delivery (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039]).

Regarding **claim 28**, Kim teaches the data structure of claim 27, wherein parameters from the network element to the radio network controller can be added in a radio link setup response message, a radio link reconfiguration ready message, a radio link reconfiguration response message or a new message defined for parameter

delivery from the network element to the radio network controller (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039]).

Regarding **claim 29**, Kim teaches the data structure of claim 27, wherein said information includes a network element TFCI threshold setting a maximum data rate TFC a scheduler of the network element is allowed to grant the user equipment wherein said information is for transfer from the radio network controller to the network element (Figs. 29-30, [0028, 0050, 0090-0120, 0167-0181]).

Regarding **claim 30**, Kim teaches the data structure of claim 27, wherein said information comprises a user equipment TFCI threshold for setting a maximum data rate TFC the user equipment is allowed to use wherein said information is for transfer from the radio network controller to the network element and which information is for use by a scheduler of the network element for adjusting said parameter independently and signaling it to the user equipment within limits set by the network element TFCI threshold (Figs. 29-30, [0028, 0050, 0090-0120, 0167-0181]).

Regarding **claim 31**, Kim teaches the data structure of claim 27, characterized by an acknowledgement power offset information element for transfer from the radio network controller to the network element for use by the network element in setting a power of hybrid ARQ acknowledgement information transmission to the user equipment [0030-0050, 0083-0120].

Regarding **claim 32**, Kim teaches the data structure of claim 27, characterized by said information comprising an acknowledgement repetition factor assigned by the radio

network controller for defining how many times a hybrid ARQ is repeated [0030-0050, 0083-0120].

Regarding **claim 33**, Kim teaches the data structure of claim 27, characterized in that said information comprises a rate grant power offset information element for transfer from the radio network controller to the network element for use by the network element in setting power of scheduling related downlink signaling [0030-0050, 0083-0120].

Regarding **claim 34**, Kim teaches the data structure of claim 27, characterized by said information comprising a rate grant repetition factor information element assigned by the radio network controller to the network element defining how many times scheduled related downlink signaling is repeated [0030-0050, 0083-0120].

Regarding **claim 35**, Kim teaches the data structure of claim 27, characterized by said information comprising a rate request power offset for transfer from the radio network controller to the network element for use by the network element in evaluating power offset applied by the user equipment to uplink related scheduling signaling [0030-0050, 0083-0120].

Regarding **claim 36**, Kim teaches the data structure of claim 27, characterized in that said information comprises a rate request repetition factor information element assigned by the radio network controller to the network element for use by the network element when it receives rate request information from the user equipment for defining how many times scheduling related uplink signaling is repeated [0030-0050, 0083-0120].

Regarding **claim 37**, Kim teaches the data structure of claim 27, characterized in that said information comprises a user equipment threshold Dtx information element assigned by the radio network controller to the network element so that a scheduler of said network element will lower a said UETFCI threshold to a value of said user equipment threshold Dtx after said user equipment has been inactive for a set period [0090-0180].

Regarding **claim 38**, Kim teaches the data structure of claim 37, characterized by said information comprising a user equipment threshold Dtx delay information element assigned by the radio network controller to the network element for defining an inactivity period after which the user equipment should set the user equipment TFCI threshold to equal the user equipment threshold Dtx after entering into DTX mode [0090-0180].

Regarding **claim 39**, Kim teaches the data structure of claim 27, characterized in that said information comprises a delay due to user equipment Ptx power information element defining a period in which the user equipment is not using a maximum bit rate due to a user equipment Ptx power limitation [0090-0180].

Regarding **claim 40**, Kim teaches the data structure of claim 27, characterized by said information comprising a TrCH under Node B control information element indicating transport channels which are under scheduling control of said network element for use by said network element for scheduling purposes (Figs. 2, [0004-0009, 0090-0180]).

Regarding **claim 41**, Kim teaches the data structure of claim 40, characterized by said network element able to control some TrCHs in a Coded Composite Transport

Channel (CCTrCH) with a number of transport channels (TrCH) combined to it (Figs. 2, [0004-0009, 0090-0180]).

Regarding **claim 42**, Kim teaches the data structure of claim 27, characterized by said information comprising a user equipment capabilities information or user equipment category information i.e., provided from the radio network controller to the network element for providing information related to user equipment capabilities for an enhanced dedicated channel or alternatively the user equipment capabilities may be categorized and the user equipment category parameter can be signaled to the network element (Figs. 2, [0004-0009, 0090-0180]).

Regarding **claim 43**, Kim teaches the data structure of claim 42, characterized by said information comprising an HARQ memory partitioning information element for providing information for HARQ memory usage (Figs. 2, [0004-0009, 0090-0180]).

Regarding **claim 44**, Kim teaches the data structure of claim 7, characterized by said information providing a transmission delay that the user equipment has to expect before it is allowed to ask for a higher data rate or RLC buffer size or RLC window size (Figs. 2, [0004-0009, 0090-0180]).

Regarding **claim 45**, Kim teaches the data structure of claim 7, characterized by said information comprising QoS parameter to assist the network element in scheduling which user equipments have priority for data rates, traffic class, and other parameters relating to QoS [0026-0028].

Regarding **claim 46**, Kim teaches the method of claim 1, wherein the information has both a cell specific parameter and a radio link specific parameter in the messages respectively (Figs. 1-2, [0002-0009]).

Regarding **claim 47**, Kim teaches the network element of claim 10, further comprising: wherein the network element is further arranged to acknowledge correct reception of the payload packet at the network element, on a radio downlink from the network element to the user equipment, and wherein the network element is further arranged to send the payload packet from the network element to the radio network controller following said correct reception from the user equipment (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

Regarding **claim 49**, Kim teaches the network element of claim 48, further comprising: means for acknowledging correct reception of the payload packet at the network element, on a radio downlink from the network element to the user equipment, and means for sending the payload packet from the network element to the radio network controller following said correct reception from the user equipment (Figs. 5-6, Figs. 9A to 17E, [0010-0020, 0030-0039, 0125-0143]).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571) 272-8131. The examiner can normally be reached on 8:00am - 6:00pm.



If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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